

Work Order ID 163272

Tuesday, June 27, 2017 10:04:35 AM

163272

Page 1

Item ID: D3969-7 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Spring (Basket Lid)
Start Date: 6/27/2017 Start Qty: 6.00 ***6*** Cust Item ID:
Required Date: 7/11/2017 Req'd Qty: 6.00 ***6*** Customer:
Reference:

Approvals: Process Plan: DAS 21 Date: JUN 27 2017 Tooling: _____ Date: _____ Run Start ***NR1***
QC: 9-89 Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3969	D								
100		0.00							
100									
Purchasing	Memo	0.00							
Purchasing	Issue P/O: <u>36850</u>								
	Order as per Dwg D3969-7								
	Possible supplier: LS Technologies								
	part#: SSA4/6-122-315-225N								
	Material release note is required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.12							
Packaging	***Measure compression only at 5mm on gas spring***								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process	OTHER :							
Misidentified ☐	☐	Past Due								

Work Order ID 163272

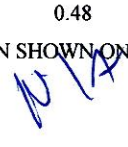
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120 *120* QC Quality Control	QC6- All purchased or subcontracted products Memo ***Measure compression only at 5mm on gas spring***	0.00 0.12				<u>6</u>			 JUL 06 2017
122 *122* Small Fab Small Fab	Memo CRIMP END FITTING AT LOCATION SHOWN ON DWG (SEE NOTE 8) ***IF NOT MADE BY VENDOR***	0.00 0.48							 
124 *124* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.12							 

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Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process	OTHER :							
Misidentified ☐	☐	Past Due								

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: 5136	0.00							
130									
Packaging	Memo	0.06							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.60							
Quality Control									

4-9-89 **DAS** **JUL 10 2017**

17/7/10 **99**

JUL 10 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

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D3969-7

Required Qty: 6.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

SSA4/6-122-315-225N

Gas Spring

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
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Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

SPECIFICATION CONTROL DRAWING

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

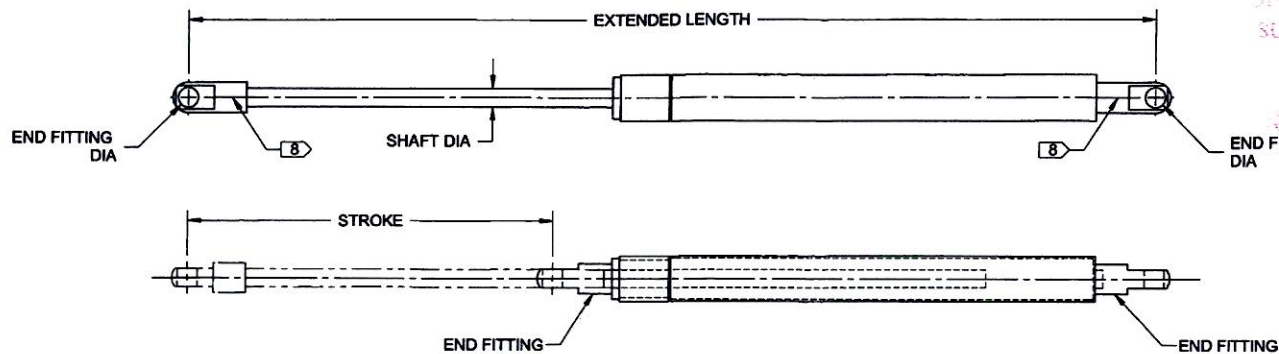
WITHOUT NOTICE

WORK ORDER

NO. 163272

ML5

170623



D3969-X SPRING

DART PART NUMBER	STROKE (mm/in)	EXTENDED LENGTH (mm/in)	SHAFT DIA (mm/in)	FORCE (N/lbs)	END FITTING TYPE	END FITTING DIA (in)	CASING MATERIAL	PREFERRED SUPPLIER	SUPPLIER PART NUMBER	WEIGHT APPROX
D3969-1	122/4.80	315/12.40	6/0.24	310/69.7	BLADE	0.257	STAINLESS STEEL	LS TECHNOLOGIES	SSA4/6-122-315-310N	0.27 lbs
D3969-3	122/4.80	315/12.40	8/0.31	360/80.9	BLADE	0.257	STAINLESS STEEL	LS TECHNOLOGIES	SSA4/8-122-310-360N	0.32 lbs
D3969-5	122/4.80	315/12.40	6/0.24	133/29.7	BLADE	0.257	STAINLESS STEEL	LS TECHNOLOGIES	SSA4/6-122-315-133N	0.27 lbs
D3969-7	122/4.80	315/12.40	6/0.24	222/50.0	BLADE	0.257	STAINLESS STEEL	LS TECHNOLOGIES	SSA4/6-122-315-225N	0.27 lbs
D3969-9	130/5.12	343/13.50	8/0.31	360/80.9	BLADE	0.257	STAINLESS STEEL	LS TECHNOLOGIES	SSA4/8-130-343-360N	0.35 lbs

NOTES:

- 1) MATERIAL: SEE CHART
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3969-X" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: SEE CHART
- 8) CRIMP END FITTING AT APPROXIMATE LOCATION SHOWN, PER MANUFACTURERS REQUIREMENTS

D	ADDED -7/9	ML	16.05.12
C	REDRAWN IN SW. ADDED -3 & -5; ADDED SHAFT DIA COLUMN TO CHART. FORCE FOR -1 CORRECTED (WAS 60.0 lbs).	JPH	10.03.04
B	DRAWING RENAMED WAS: GAS SPRING (BASKET LID). NOTE 8 ADDED.	AJS	09.11.10
A	NEW ISSUE	AJS	09.07.27
REV.	DESCRIPTION	BY	DATE
DESIGN	AS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	ML		
CHECKED	AJS	DRAWING NO.	REV. D
MFG. APPR.	DD	D3969	SHEET 1 OF 1
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	BASKET LID SPRING	NTS
DATE	16.05.12	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

RELEASED
2016-05-19
BWL 16-581

APPROVED

DQA: _____ Date: _____



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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
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Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : ☐							



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO36850

Purchase Order Date 6/28/2017

PO Print Date 6/28/2017

Page Number 1 of 2

Order From :
LS TECHNOLOGIES INC.
314 JESSOP AVE
SASKATOON, SK S7N 1Y6
CA

VC-LST0001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED
JUN 28 2017

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	306 683 5000	Customer POID	
		Customer Tax #	10127-2607
Ship To Contact		Terms	Net 30
Ship To Phone		Currency	CAD
Ship Via:	FedEx Overnight collect	FOB	EXW - (Ex Works)
Ship Acct:			

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	SSA4/6-122-315-225N AS PER DWG D3969-7 REV. D B163272	Gas Spring	7/5/2017 Yes 7/5/2017	FN	6.00 Each	\$65.00	\$390.00
Line Total:							\$390.00
2	B8-240-575-150N AS PER DWG D3552-11 REV. L B163248	GAS SPRING	7/5/2017 Yes 7/5/2017		8.00 Each	\$41.36	\$330.91
Line Total:							\$330.91

PO Instructions: Fedex Acc#151793240

Note:

6/28/2017

LS Technologies Inc
314 Jessop Ave
Saskatoon, SK S7N 1Y6

Ph: 306-683-5000 Fax: 306-683-6403

Packing Slip

P.O. No.	Date	Invoice #
36850	6/29/2017	16860

Bill to:
Dart Aerospace Ltd 1270 Aberdeen St. Hawkesbury, ON K6A 1K7

Ship to:
Main Finished Goods Location Dart Aerospace Ltd 1270 Aberdeen St. Hawkesbury, ON K6A 1K7

Ship	Via	FOB
6/29/2017	Fed-Ex	

Qty	Description
6	D3969-7 B163272 Stainless Gas Spring (SSA4/6-122-315-225N) 50 Lb Force LABELLED WITH PERMANT INK MARKER ONLY - NO LABELS
8	D3552-11 B163248 Gas Spring
Shipping Via - Collect - FED EX Express Tracking # 779535968068	
SP17-7-5	

Order checked by : 

DAS
38
9-89



LS Technologies Inc

314 Jessop Ave

Saskatoon, SK, S7N 1Y6

Ph: (306) 683-5000 Fax: (306) 683-6403

Certificate of Compliance

June 29, 2017

This is to certify that the parts listed below meets specifications as required by your order.

✓ 6 Units : D3969-7 B163272 Stainless Gas Spring

8 Units: D3552-11 B163248 Gas Spring

Country of Manufacture: Canada

Date of Manufacture : June 2017

This product is ROHS compliant.

Purchase Order # 36850

Invoice # 16860

L S Technologies Inc Canada

A blue ink signature of Nolan Fehr, written over a horizontal line.

Nolan Fehr
Manager